

**ABSTRACT**

Enzyme-treated papermaking sludges are provided, as are methods of making the enzyme-treated sludge. Papermaking processes that incorporate the enzyme-treated papermaking sludges into papermaking pulp are also provided as are paper and paperboard

5 products made from the resultant pulp.

Enzyme-treated papermaking sludges are provided, as are methods of making the enzyme-treated sludge. Papermaking processes that incorporate the enzyme-treated papermaking sludges into papermaking pulp are also provided as are paper and paperboard products made from the resultant pulp.